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### **REMARKS**

This response is intended as a full and complete response to the non-final Office Action mailed May 3, 2005. In the Office Action, the Examiner notes that claims 1-9 and 14-17 are pending and rejected. By this response, Applicant has herein amended claims 1-2, 4, 6-7, 14, and 16-17. Claims 3, 5, 8-9, and 15 continue unamended.

In view of both the amendments presented above and the following discussion, Applicant submits that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicant believes that all of the pending claims are now in allowable form.

It is to be understood that Applicant, by amending the claims, does not acquiesce to the Examiner's characterizations of the art of record or to Applicant's subject matter recited in the pending claims. Further, Applicant is not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

### **REJECTIONS**

#### **35 U.S.C. §103**

##### **Claims 1-9 and 15-17**

The Examiner has rejected claims 1-9 and 15-17 as being obvious and unpatentable under the provisions of 35 U.S.C. §103(a). In particular, the Examiner has rejected claims 1-9 and 15-17 as being unpatentable over Kannas et al. (U.S. Patent No. 6,683,853 B1, hereinafter "Kannas") in view of Montpetit (U.S. Patent 6,366,761 B1, hereinafter "Montpetit"). The Applicant respectfully traverses the rejection.

The Applicant agrees that, as stated by the Examiner, Kannas fails to teach or suggest preferred ones of traffic classes in a priority order. Therefore, Kannas fails to teach or suggest Applicant's invention as a whole. Furthermore, Montpetit fails to bridge the substantial gap as between Kannas and Applicant's invention of at least claim 1.

In general, Montpetit teaches a data communication system and method that allocates an amount of bandwidth to a ground terminal for uplink transmission of one or more data packets in a low-Earth-orbit (LEO) satellite data communication network. A

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bandwidth request message is generated and transmitted to a bandwidth allocation processor for requesting allocation of a particular amount of bandwidth. (Montpetit, Abstract). Montpetit, however, fails to teach or suggest at least the limitations of "a request for preferred ones of traffic classes in a priority order" and "said network successively checks, according to said priority order, if enough resources are available for at least one other traffic class preference."

Rather, Montpetit teaches that the bandwidth-allocation processing unit allocates bandwidth to the ground terminal in accordance with a priority status identified in a bandwidth request message. In particular, Montpetit states that "[i]f sufficient bandwidth is not available to satisfy a bandwidth request message, the bandwidth request may be denied or a partial allocation of bandwidth may be permitted." (Montpetit, Abstract). In other words, if the requested amount of bandwidth is not available, either the bandwidth request is denied, or a percentage of the available bandwidth is allocated.

In Applicant's invention of at least claim 1, on the other hand, an amount of bandwidth is not requested. Rather, the request in Applicant's invention of at least claim 1 is a request for a plurality of different traffic classes, with preferences among the plurality of requested traffic classes indicated by a priority order. A traffic class, as taught in Applicant's invention of at least claim 1, is simply not an amount of bandwidth. Rather, a traffic class is a category of traffic that may have associated quality of service parameters. For example, as stated in Applicant's Specification, different traffic classes may include conversational, streaming, interactive, background, and the like. Furthermore, particular bandwidth allocations may be requested for different traffic classes. Since an amount of bandwidth may be requested for a particular traffic class, Applicant respectfully submits that it is quite clear that an amount of bandwidth is not a traffic class. As such, a request for an amount of bandwidth, as taught in Montpetit, is simply not a request for preferred ones of traffic classes, as taught in Applicant's invention of at least claim 1.

Furthermore, since the amount of bandwidth taught in Montpetit has absolutely nothing to do with the traffic classes taught in Applicant's invention of at least claim 1, the Applicant further submits that the priority of the bandwidth amount, as taught in Montpetit, is completely different from the priority order of the preferred ones of traffic

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classes, as taught in Applicant's claim 1. As taught in Montpetit, the priority associated with the bandwidth request merely provides an indication as to how much of the requested bandwidth should be allocated if the full requested amount of bandwidth cannot be allocated. With respect to Applicant's invention of at least claim 1, on the other hand, since a traffic class comprises a distinct category of network traffic, a percentage of a traffic class cannot be allocated. As such, the priority of the Montpetit bandwidth request, which is used for determining a percentage of bandwidth to allocate, has absolutely nothing to do with a request for preferred ones of traffic classes having a priority order, as taught in Applicant's invention of at least claim 1.

Moreover, Montpetit is completely devoid of any teaching or suggestion of at least the limitations of preferred ones of traffic classes in a priority order and an associated network-based traffic class resource check, as taught in Applicant's invention of at least claim 1. Rather, Applicant again submits that Montpetit teaches that a percentage of requested bandwidth is allocated according to an associated priority. Thus, the teachings of Montpetit are completely different from the teachings of Applicant's invention of at least claim 1 since rather than allocating a percentage of bandwidth, Applicant's invention of at least claim 1 makes a network-based determination as to whether there are sufficient network resource to support a next preferred traffic class. As such, Applicant submits that Montpetit fails to teach or suggest Applicant's invention of at least claim 1 as a whole.

Furthermore, Applicant further submits that even if the Kannas and Montpetit references could be combined, they would merely teach a data transmission system in which data packets are selected for transmission according to both a priority associated with each of the individual data packets, as well as a priority associated with an amount of bandwidth requested for transmitting those data packets. As such, if the full amount of requested bandwidth could not be allocated, a percentage of the requested bandwidth would be used for transmitting the data packets according to data packet priority. In other words, in such a system, the packet priority of Kannas would be used for determining the bandwidth allocation percentage of Montpetit.

In particular, a transmission priority associated with individual data packets is not a priority order of traffic classes. Similarly, a priority of a bandwidth allocation is also not

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a priority order of traffic classes. Thus, the data packet and bandwidth request priorities of Kannas and Montpetit, respectively, having nothing to do with the preferred ones of traffic classes, as taught in Applicant's invention of at least claim 1. Therefore, a system combining the teachings of Kannas and Montpetit is completely different from the Applicant's invention of at least claim 1, in which a request is made for preferred ones of traffic classes having a priority order where that priority order may be used for successively checking if there are sufficient resources for supporting each of the preferred traffic classes.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Kannas and Montpetit references, alone or in combination, fail to teach or suggest Applicant's invention of at least claim 1, as a whole.

As such, for at least the reasons stated above, Applicant respectfully submits that independent claim 1 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, independent claims 6, 15, and 16 recite limitations substantially similar to relevant limitations of independent claim 1. Namely, independent claims 6, 15, and 16 include at least the limitation of "preferred ones of traffic classes in a priority order." As such, for at least the reasons discussed above with respect to claim 1, the Applicant respectfully submits that independent claims 6, 15, and 16 are also not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

As such, Applicant submits that independent claims 1, 6, 14, 15 and 16 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 2-5, 7-9, and 17 depend, either directly or indirectly, from independent claims 1, 6, 15, and 16, and recite additional limitations thereof. Therefore, for at least the same reasons set forth above, the Applicant submits that

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these dependent claims are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicant respectfully requests that the Examiner's rejections be withdrawn.

#### **Claim 14**

The Examiner has rejected claim 14 as being obvious and unpatentable under the provisions of 35 U.S.C. §103(a). In particular, the Examiner has rejected claim 14 as being unpatentable over Kannas in view of Montpetit, and further in view of Malmlof (U.S. Patent 6,594,241 B1, hereinafter "Malmlof"). Applicant respectfully traverses the rejection.

For at least the reasons discussed above with respect to independent claim 1, Kannas and Montpetit fail to teach or suggest Applicant's invention as a whole. Namely, Kannas and Montpetit fail to teach or suggest at least the limitation of "preferred ones of traffic classes in a priority order," as recited in Applicant's independent claim 14. As such, Applicant submits that Kannas and Montpetit, alone or in combination, also fail to teach or suggest Applicant's invention of at least claim 14. Furthermore, Malmlof fails to bridge the substantial gap as between Kannas and Montpetit and Applicant's invention of at least claim 14.

In general, Malmlof teaches a channel-type switching control system in which, after a mobile user connection is assigned a particular type of channel, a sliding window with a predetermined number of time intervals is established for that connection. In particular, Malmlof teaches that the "associated information may include one or more parameters including the type of channel currently supporting the connection, an amount of data to be transmitted for the mobile user connection, a requested quality of service, etc." (Malmlof, Abstract). Malmlof, however, fails to teach or suggest Applicant's invention as a whole. Namely, Malmlof fails to teach or suggest a request for preferred ones of traffic classes in a priority order, as taught in Applicant's invention of at least claim 14.

Rather, Malmlof merely teaches channel type switching decisions, such as switching to a dedicated channel or switching to a common channel. Moreover, Applicant respectfully points out that the Examiner merely relies on Malmlof for teaching

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the transceiver and processor of Applicant's invention of claim 14. Malmof is completely devoid of any teaching or suggestion of a request for preferred ones of traffic classes in a priority order, as taught in Applicant's invention of at least claim 14.

As such, Applicant submits that independent claim 14 is not obvious and fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Therefore, Applicant respectfully requests that the Examiner's rejections be withdrawn.

### **SECONDARY REFERENCES**

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicant's disclosure than the primary references cited in the Office Action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

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### CONCLUSION

Thus, Applicant submits that none of the claims presently in the application are obvious under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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